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(54) Title: **GENE FOR INCREASED SOMATIC RECOMBINATION**

(57) Abstract: The present invention relates to nucleic acids encoding polypeptides involved in homologous recombination, as well as vectors and host cells comprising the nucleic acids and polypeptides encoded by the nucleic acids. Also provided are methods for inducing somatic and/or meiotic homologous recombination in a cell, comprising modulating the expression or properties of one or more gene products selected from the group consisting of AtIno80, At3g57300, Rvb1 (At5g22330), Rvb21 (At5g67630), Rvb22 (At3g49830), At3g57290, AtArp5.1 (At3g12380), AtArp5.2 (At5g56180), AtArp5.3 (At3g60830) and AtArp8 (At5g43500), their homologues, fragments or derivatives. In particular, the methods can be used to increase gene targeting.

INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER
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According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EMBL, BIOSIS, EPO-Internal, SEQUENCE SEARCH, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	DATABASE EMBL/GENBANK/DBJ 'Online! "Arabidopsis thaliana putative helicase (At3g57300) mRNA, partial cds." retrieved from EBI Database accession no. AY080695 XP002254488 abstract	1,2
X	DATABASE EMBL/GENBANK/DBJ 'Online! 21 March 2002 (2002-03-21) "Arabidopsis thaliana cDNA clone:RAFL09-38-B21, 5'-end." retrieved from EBI Database accession no. AV829055 XP002254489 abstract	1-3



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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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